



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
EPIROC D65-10 G22SED0578
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0212403	JR0202418	JR0202841
Sample Date		Client Info		19 Apr 2024	07 Mar 2024	02 Feb 2024
Machine Age	hrs	Client Info		3243	3023	2744
Oil Age	hrs	Client Info		220	1848	0
Filter Age	hrs	Client Info		220	0	0
Oil Changed		Client Info		Not Chngd	Changed	Not Chngd
Filter Changed		Client Info		Not Chngd	Changed	Not Chngd
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		16	15	17
Iron	ppm	ASTM D5185m	>20	0	3	0
Chromium	ppm	ASTM D5185m	>10	0	0	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	0	<1	1
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m	>75	0	2	2
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

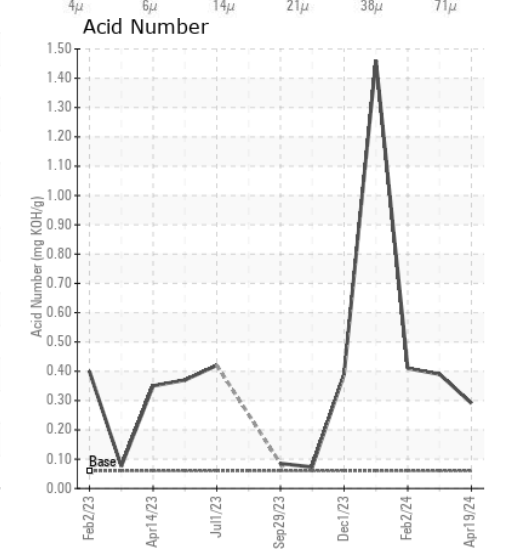
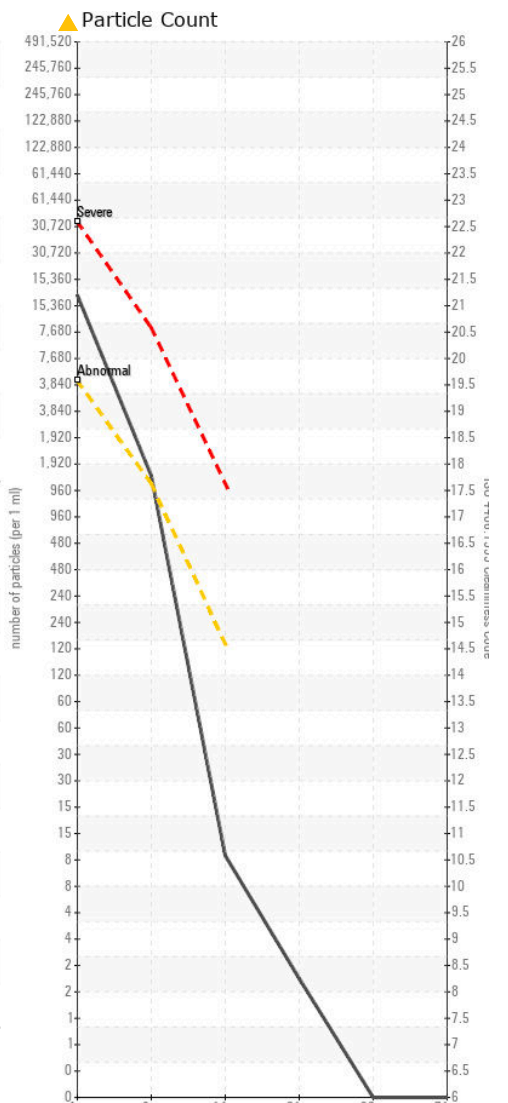
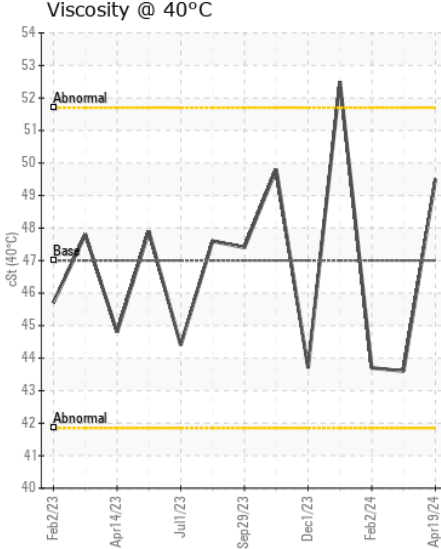
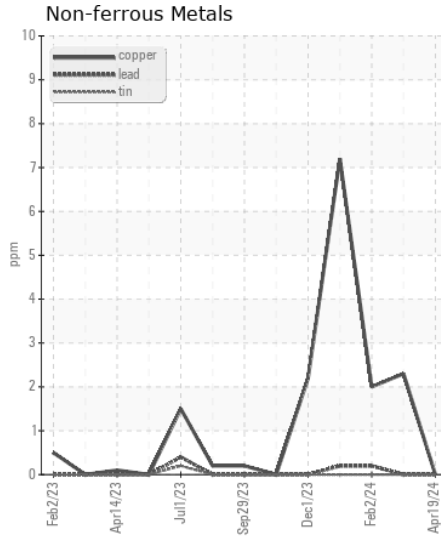
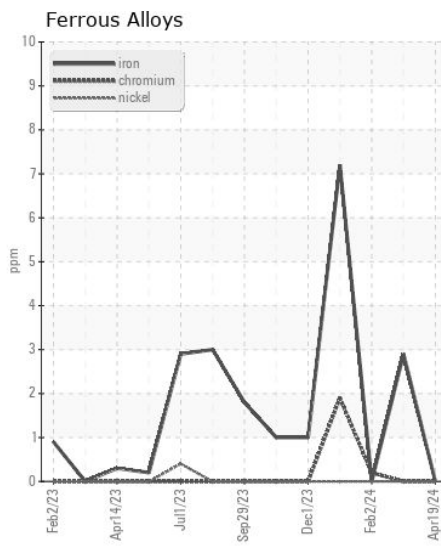
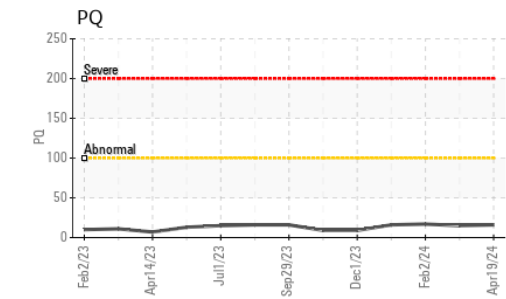
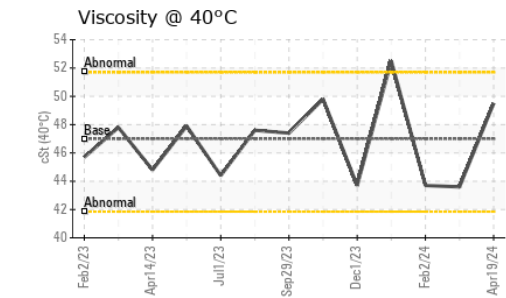
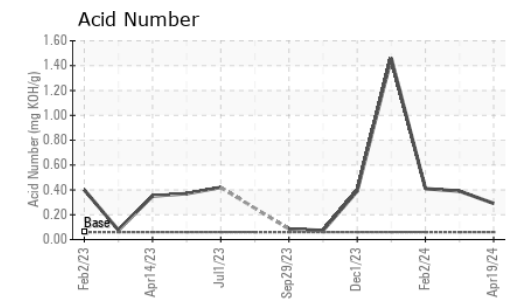
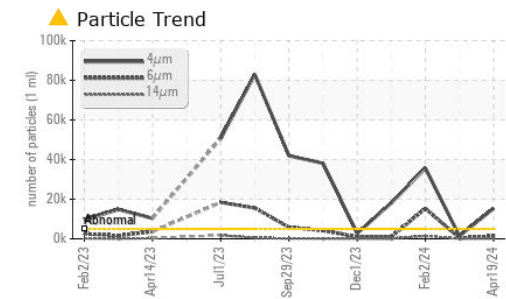
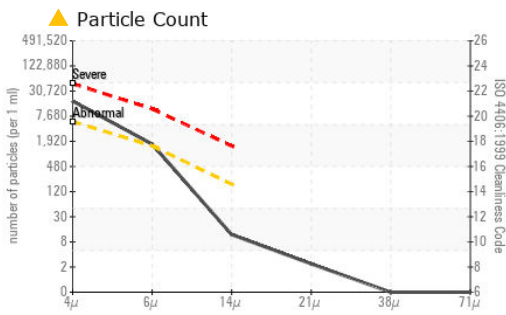
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<1	5	4
Potassium	ppm	ASTM D5185m	>20	0	0	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 15332	1375	▲ 35709
Particles >6µm		ASTM D7647	>1300	● 1441	356	▲ 15296
Particles >14µm		ASTM D7647	>160	10	23	▲ 1444
Particles >21µm		ASTM D7647	>40	2	6	▲ 279
Particles >38µm		ASTM D7647	>10	0	0	3
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 21/18/10	18/16/12	▲ 22/21/18
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	2	0
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		0	29	51
Calcium	ppm	ASTM D5185m		51	347	14
Phosphorus	ppm	ASTM D5185m	827	629	315	258
Zinc	ppm	ASTM D5185m	0	30	313	306
Sulfur	ppm	ASTM D5185m	13	29	1124	922
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.291	0.39	0.41
Visc @ 40°C	cSt	ASTM D445	47	49.5	43.6	43.7



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0212403 **Received** : 24 Apr 2024
Lab Number : 06158988 **Tested** : 25 Apr 2024
Unique Number : 10994411 **Diagnosed** : 25 Apr 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

FUQUAY - MARTIN MARIETTA
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 HOLLY SPRINGS, NC
 US 27549
 Contact: DARIN HESS
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 T:
 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)